PipePro™ 304

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Diesel Engine-Driven Welder/Generator

Quick Specs

Industrial Applications
Fabrication
Structural Steel Work
Cross-Country Pipe Welding
Process Plant Piping
Repair
Power Generation

Processes
MIG (GMAW) and Pulsed MIG (GMAW-P)*
Flux Cored (FCAW)
Stick (SMAW)
DC TIG (GTAW)
Air Carbon Arc (CAC-A) Cutting and Gouging (thru 1/4 in carbons)
Air Plasma Cutting and Gouging with Optional Spectrum Models
**with Optima Control*

Output Range CC/DC 5–400 A
CV/DC 10–34 V

Weld Output Rated at 104° F (40° C)
CC/DC and CV/DC: 300 A at 32 Volts, 60% Duty Cycle

Generator Power Rated at 104° F (40° C)
12,000 Watts, 1 or 3 phase

Weight 910 lb (412 kg)

The Power of Blue®

Excellent multiprocess arc performance. Stick welding (uphill and downhill) is superior with excellent control on the bead (root), hot pass, fill and cap. The DIG control changes a soft arc to a stiff forceful arc that prevents electrode sticking. Lift-Arc™ TIG allows DC welding without the use of an HF unit for x-ray quality starts. The MIG arc will run short arc, globular, spray, and pulsed spray modes with excellent results using any wire or flux core in the field. Inductance control customizes the puddle for maximum performance.

Toolless top and side engine access allows easy and faster maintenance with little clearance space needed.

WELD AT IDLE — when more power is required the machine automatically goes to high speed without a change in the arc. Idles with up to 5 kW of weld power (225 A at 23 V, 170 A at 30 V).

12,000 watts of voltage-regulated single- and three-phase generator power allows electric welders and plasma cutters to be plugged into the unit allowing multiple arcs to be run at the same time.

26-HP, 3-cylinder Kubota diesel engine provides **automatic engine shutdown** to protect the engine from failure due to low oil pressure or high coolant temperature.

Lightweight design and compact size allows a driver to see over machine when mounted on a truck bed. Fits sideways in a standard pickup.

Dual **digital weld ammeter and voltmeter** are standard. Amps or volts can be preset using the weld meters.

Cold weather starting aids such as standard glow plugs and block heater ensure easy starts.

Dual power option (Patented) uses 230 volt single- or three-phase electric input power, eliminating fuel cost, noise, engine wear and emissions.

Low noise operation allows for better work site communication and safety. 72 db at 7 m (no load—idle), 78 db at 7 m (full load—high speed).

TRUE BLUE® 3 YR. WARRANTY

Welder/generator is warranted for 3 years, parts and labor.
Engine is warranted separately by the engine manufacturer.

MADE IN USA
APPLETON, WI

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

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International FAX: 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001:2000 REGISTERED QUALITY SYSTEM

Specifications (Subject to change without notice.)

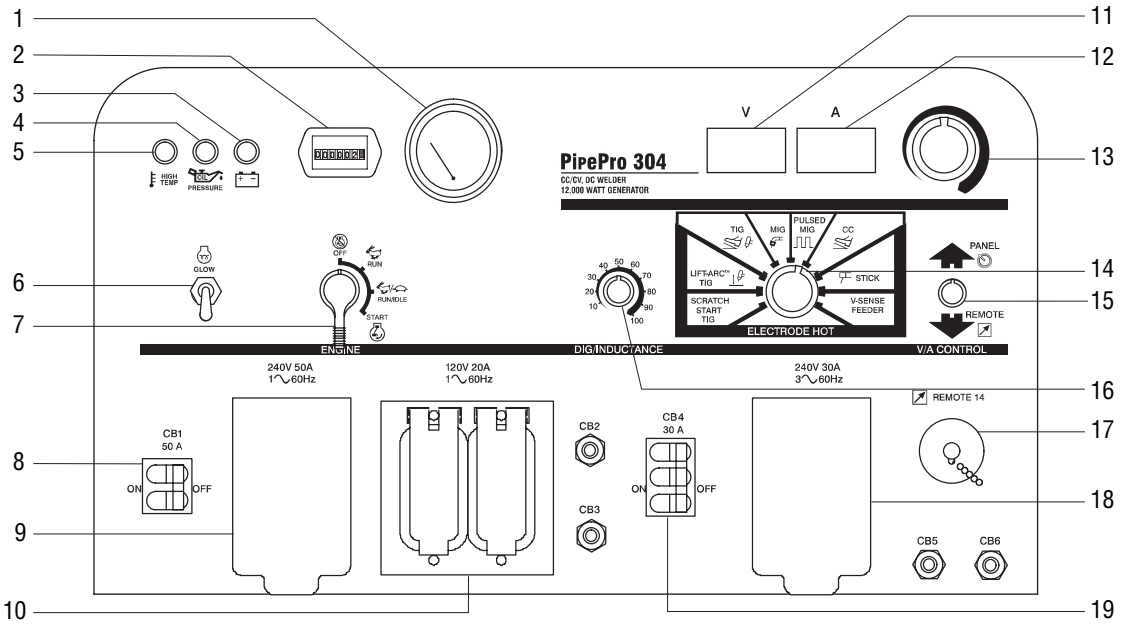
Welding Mode	Max. Open-Circuit Voltage	Rated Weld Output at 32 V at 60% Duty Cycle*	Output Range	Generator Power	Dimensions	Net Weight
CC/DC	95	300 A	5–400 A	1-phase: 12 kVA/KW, 100/50 A, 120/240 VAC, 60 Hz 3-phase: 12 kVA/KW, 30 A, 240 VAC, 60 Hz 12 kVA/KW shared by all receptacles simultaneously	H: 30 in (762 mm) W: 24 in (610 mm) D: 59-1/2 in (1511 mm)	910 lb** (412 kg)
CV/DC	95	300 A	10–34 V			

**Rated output tested at 104° F (40° C). **Additional 99 lb (45 kg) when tank is full.*

Engine Specifications (Subject to change without notice.)

Engine Brand	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	High Coolant Temp/ Low Oil Pressure Shutdown
Kubota DH905 2-year limited North American Manufacturer Warranty	26 at 3600 RPM	3-cylinder, industrial, liquid-cooled diesel	3600 RPM	2525 RPM	13 gal (49 L)	5.4 qt (5.1 L)	Standard

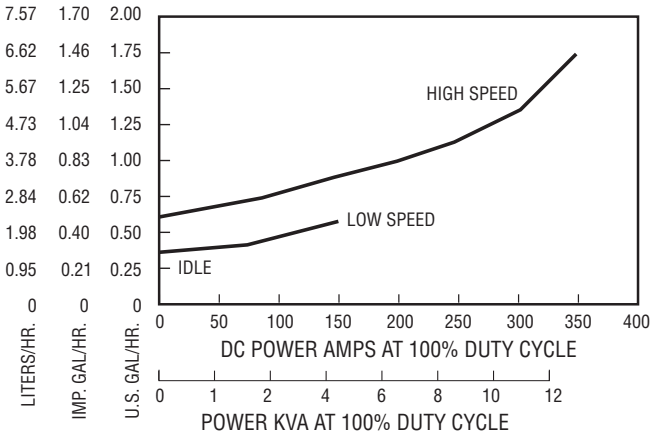
Control Panel



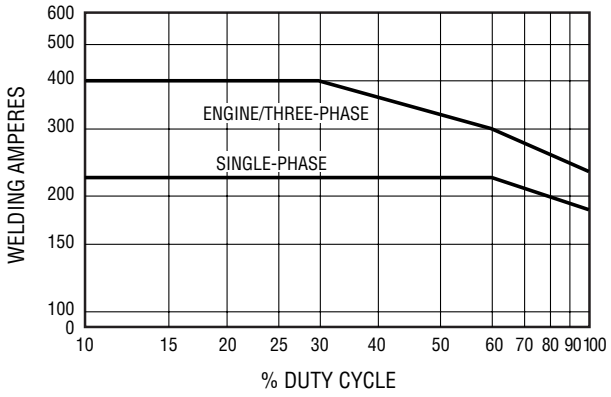
1. Fuel Gauge
2. Engine Hour Meter
3. Battery Charging Light
4. Engine Oil Pressure Light
5. Engine Temperature Light
6. Glow Plug Switch
7. Engine Control Switch
8. Circuit breaker for 240 VAC, 50 A, 1-Phase Receptacle
9. 240 VAC, 50 A, 1-Phase, Full KVA Receptacle
10. 120 VAC, 20 A, Duplex Receptacles
11. Weld Voltmeter
12. Weld Ammeter
13. Voltage/Amperage Adjustment Control
14. Mode Switch
15. Voltage/Amperage Control Switch
16. DIG/Inductance Control
17. Remote 14 Receptacle
18. 240 VAC, 30 A, 3-Phase, Full KVA Receptacle
19. Circuit breaker for 240 VAC, 30 A, 3-Phase Receptacle

Performance Data

FUEL CONSUMPTION



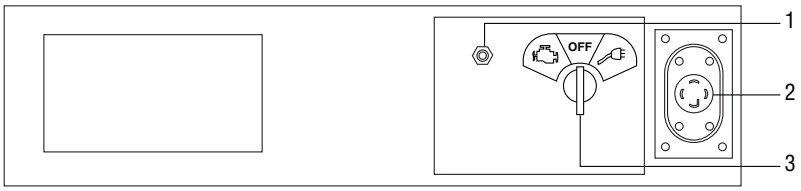
DUTY CYCLE CHART



Genuine Miller Options

Dual Power Option (Patented)
Allows the PipePro 304 to operate independently of the engine using 230 volt single- or three-phase electric input power. Eliminates fuel cost, noise, engine wear and emissions. Plug #197 355 for dual power included (cord not included).

Note: Available as factory option. Dual power field option (#195 275) effective with serial #LC649059. Field option (#194 715) restricted to PipePro 304 units with serial #LA062611 through #LC649058.



1. 30 A Circuit Breaker
2. 3-Phase, 230 VAC Input Power Plug
3. Power Selector Switch

Specifications (Subject to change without notice.)

Heavy Industrial

Rated Weld Output at 60% Duty Cycle	Voltage Range in CV Mode	Amperage Range in CC Mode	Max. Open-Circuit Voltage	RMS Amps Input at Rated Load Output, 60 Hz 3-Phase at NEMA Load Voltages and Class I Rating 230 V	KVA	KW
300 A at 32 VDC, 3-Phase	10–34 V	5–400 A	95 VDC	30.5	12.2	11.6
225 A at 29 VDC, 1-Phase				47.4	11.3	7.6

Lockable Flame Arrestor Fuel Cap
#043 947 Field

Spark Arrestor Kit
#194 871 Field

Full KVA Plug Kit #119 172 Field
240/120 VAC single-phase, 50 amp plug (NEMA 14-50P) to fit full KVA receptacle.

Three-Phase Full KVA Plug Kit #007 470 Field
240 VAC three-phase, 30 amp plug (NEMA L15-30P) to fit KVA receptacle.

Genuine Miller Accessories

Protective Cover
#195 125 Blue, with Miller logo
Attractive, waterproof cover resists stains and mildew, and protects the finish of your welder.

Multiple Operator Welding

XMT® 304 #903 471
The XMT 304 CC/CV multiprocess power source can be run off the machine's generator to provide two arcs with only one engine. The XMT combines the advantages of inverter-based design with the built-in features of a high-end MIG machine. At only 76 lb (34.5 kg) it's portable enough to take anywhere. See Lit. Index No. DC/18.8.

CST™ 280
#907 244 220-230/460–575 VAC, 50/60 Hz with Dinse-style connectors
#907 244-01-1 220-230/460–575 VAC, 50/60 Hz with Tweco-style connectors
#907 251 208-230/400–460 VAC, 50/60 Hz with Dinse-style connectors
#907 251-01-1 208-230/400–460 VAC, 50/60 Hz with Tweco-style connectors
The CST 280 CC/DC power source can be run off the machine's generator to provide two arcs with only one engine. At only 41 lb (18.6 kg), it is portable enough to take anywhere. See Lit. Index No. DC/29.55.

Plasma Cutters

Spectrum® 625 #907 058
Economical plasma cutting system rated to cut 7/8 in. See Lit. Index No. PC/9.5.

Spectrum 2050 #903 777-01-2
Portable, easy-to-carry unit is an excellent choice for cutting jobs up to 3/4 in. See Lit. Index No. PC/7.0.

MIG/Flux Cored Welding

SuitCase™ 8VS Wire Feeder #194 890
SuitCase™ X-TREME™ 12VS Wire Feeder #195 500
Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index No. M/6.4, M/6.41.

SuitCase™ 8RC Wire Feeder #194 938
SuitCase™ 12RC Wire Feeder #194 940
Lightweight, modular design and flexible enough to run a variety of wires up to .062 in diameter. Comes standard with remote voltage control. See Lit. Index No. M/6.5.

Spoolmatic® 30A #130 831
A 1-lb, air-cooled spool gun that extends the weld process range by adding a handy portable system for small wire MIG. Rated 200 A at 100% duty cycle. Includes 30 ft (9.1 m) cable assembly. WC Control required. See Lit. Index No. M/1.5.

MIG/Flux Cored Welding (continued)

WC-24 Control #137 549
To be used with the Spoolmatic 30A.

XR Wire Feeders and Guns
Push-pull system designed to handle difficult-to-feed soft alloy wires such as aluminum. See Lit. Index No. M/1.7.

MIG (GMAW)/FCAW Guns
Miller produces a complete line of dependable MIG guns. Check literature for complete details. See Lit. Index Nos. AY/16.0 and AY/17.0.

Optima™ MIG (GMAW) Pulse Control #043 389
A multipurpose, microprocessor-based pulse control for synergic MIG (wire welding or GMAW), manual MIG pulsing or standard MIG welding. Use this control with the PipePro 304 and any Miller wire feeder, including automatic feeders and spool guns. Includes 25 ft (7.6 m) cord with 14-pin plug.

Stick (SMAW) Welding

Weld Leads
#173 851 2/0, 350 A, 100% duty cycle, 50 ft (15.2 m) stinger, 50 ft (15.2 m) ground

#043 952 2/0, 300 A, 100% duty cycle, 100 ft (30.5 m) stinger, 50 ft (15.2 m) ground

#043 956 2/0, 250 A, 100% duty cycle, 100 ft (30.5 m) stinger, 100 ft (30.5 m) ground

Remote Controls and Switches

RFCS-14 HD Foot Control #194 744
For all Miller solid-state power sources after serial number JK674521. This new design increases stability with a larger base and durability with a heavier cord. Maximum flexibility is accomplished with a reconfigurable cord that can exit the front, back or either side of the pedal. Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.

RHC-14 Hand Control #129 340
Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x 82 mm). Includes 20 ft (6 m) cord and 14-pin plug.

RCC-14 Remote Contactor and Current Control #151 086
Rotary-motion fingertip control. Fastens to TIG torch using two Velcro strips. Allows complete current and contactor control at operator's fingertips. Includes 28 ft (8.5 m) cord and plug.

Extension Cords for 14-Pin Remote Controls
#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (22.9 m)

PRHC-14 Hand Control #195 511
For all solid-state power sources after serial number JK674521. Complete current or voltage control brings 120 volts GFCI power to work area in a single cord. Housed in a durable light aluminum case and includes 125 ft (38 m) cord with plugs.

Genuine Miller Accessories (Continued)

Trailers and Hitches

Lunette Eye 2-1/2 in (64 mm) #043 824
For use with 224 trailer.

Cable Tree #043 826
Provides an area to conveniently wrap weld cables and extension cords. For use with 224 trailer.

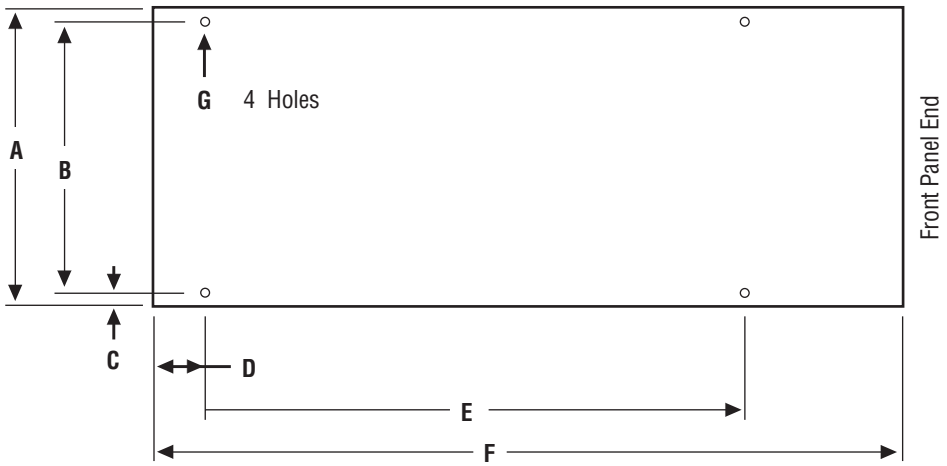
HWY-224 Trailer #043 805
A 2650 lb (1202 kg) capacity highway trailer. Welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-224 comes with jack stand, 2 in (50 mm) ball hitch, fenders and lights.
Note: Trailer is shipped unassembled.

Trailer Specifications (Subject to change without notice.)

Model	Gross Axle Weight Rating	Gross Vehicle Weight Rating	Net Payload	Height of Bed	Road Clearance	Track (Center to center of tires)	Standard Tires (Standard rating or P-size rating)	Dimensions	Net Weight
HWY-224	3500 lb (1588 kg)	2960 lb (1343 kg)	2650 lb (1202 kg)	18-1/2 in (470 mm)	7-1/2 in (191 mm)	52 in (1321 mm)	B-78-13C	Length: 105-1/2 in (2680 mm) Width: 61 in (1549 mm)*	355 lb (161 kg)

** Width at outside of fenders.*

Mounting Specifications

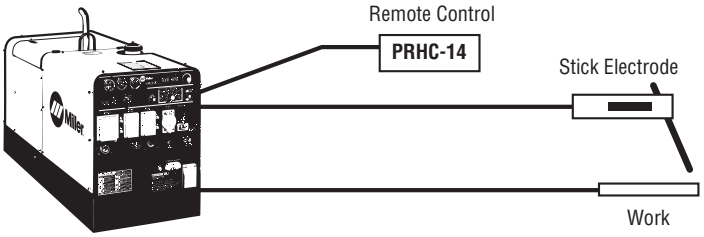


A. 23-5/8 in (600 mm)
B. 21-1/2 in (546 mm)
C. 1 in (25 mm)
D. 15-5/8 in (397 mm)
E. 26-3/8 in (679 mm)
F. 58-3/4 in (1492 mm)
G. 13/32 in (10 mm) Dia.

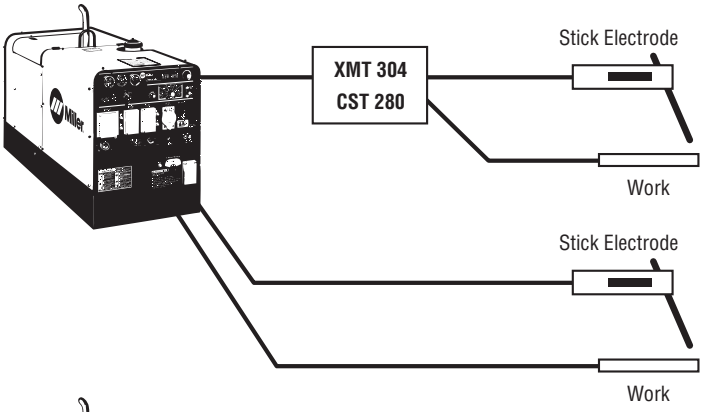
Overall Dimensions
Height: 30 in (762 mm)
36 in (914 mm)
to top of exhaust
Width: 24 in (610 mm)
Depth: 59-1/2 in (1511 mm)

Typical Installations

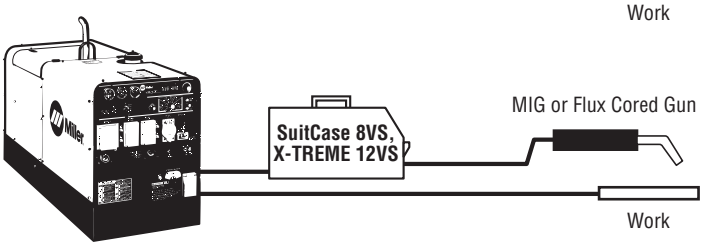
Stick (SMAW) Basic Equipment
PRHC-14 #195 511



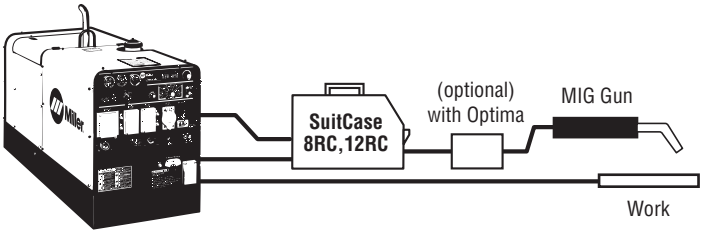
Multiple Operator
XMT 304 #903 471
CST 280 #907 244
#907 244-01-1
#907 251
#907 251-01-1
(See pg. 4 or Lit. Index No. DC/29.55 for more information)



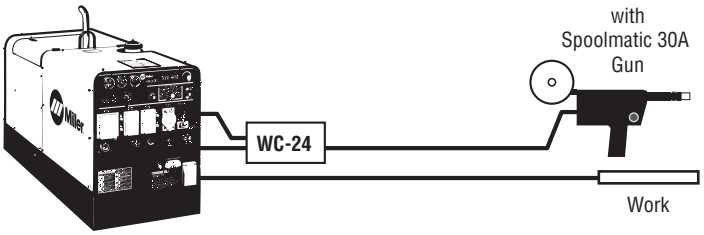
Flux Cored (FCAW) Basic Equipment
SuitCase 8VS #194 890
SuitCase X-TREME 12VS #195 500



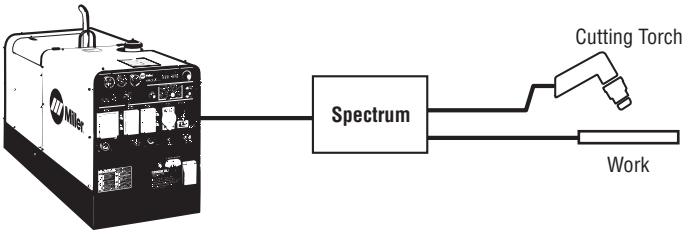
MIG (GMAW) Basic Equipment
SuitCase 8RC #194 938
SuitCase 12RC #194 940
Optima #043 389



MIG (GMAW) Basic Equipment
Spoolmatic 30A #130 831
WC-24 #137 549



Plasma Basic Equipment



Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
PipePro™ 304	**#903 731** **#903 731-01-3**	CC/CV CC/CV, Dual Power		
Dual Power Option	**#195 275**	Field		
Lockable Flame Arrestor Fuel Cap	**#043 947**	Field		
Full KVA Plug Kit	**#119 172**	Field		
Three-Phase Full KVA Plug Kit	**#007 470**	Field		
Spark Arrestor Kit	**#194 871**	Field		
Accessories				
Protective Cover	**#195 125**	Field. Blue, with Miller logo		
Multiprocess Welding				
XMT® 304 CC/CV	**#903 471**	See Lit Index No. DC/18.8		
CST™ 280 CC/DC	**#907 244** **#907 244-01-1** **#907 251** **#907 251-01-1**	220-230/460–575 VAC w/Dinse-style connectors. See Lit Index No. DC/29.55 220-230/460–575 VAC w/Tweco-style connectors. See Lit Index No. DC/29.55 208-230/400–460 VAC w/Dinse-style connectors. See Lit Index No. DC/29.55 208-230/400–460 VAC w/Tweco-style connectors. See Lit Index No. DC/29.55		
Plasma Cutters				
Spectrum® 625	**#907 058**	See Lit Index No. PC/9.5		
Spectrum® 2050	**#903 777-01-2**	See Lit Index No. PC/7.0		
MIG/Flux Cored Welding				
SuitCase™ 8VS	**#194 890**	See Lit. Index No. M/6.4		
SuitCase™ X-TREME™ 12VS	**#195 500**	See Lit. Index No. M/6.4		
SuitCase™ 8RC	**#194 938**	See Lit. Index No. M/6.5		
SuitCase™ 12RC	**#194 940**	See Lit. Index No. M/6.5		
Spoolmatic® 30A	**#130 831**	Air-cooled. See Lit Index No. M/1.5		
WC-24 Control	**#137 549**	Required for use with Spoolmatic 30A. See Lit Index No. M/1.5		
XR™ Wire Feeders and Guns		See Lit Index No. M/1.7		
MIG (GMAW)/Flux Cored (FCAW) Guns		See Lit Index Nos. M/10.0 and M/13.4		
Optima™	**#043 389**	MIG (GMAW) Pulse Control. See Lit Index No. AY/16.0 and AY/17.0		
Stick				
Weld Leads	**#173 851** **#043 952** **#043 956**	2/0, 350 A, 100% duty cycle, 50 ft (15.2 m) stinger, 50 ft (15.2 m) work cable 2/0, 300 A, 100% duty cycle, 100 ft (30.5 m) stinger, 50 ft (15.2 m) work cable 2/0, 250 A, 100% duty cycle, 100 ft (30.5 m) stinger, 100 ft (30.5 m) work cable		
Stick Electrodes				
Remote Controls and Switches				
RFCS-14HD	**#194 744**	Foot control		
RHC-14	**#129 340**	Hand control		
RCC-14	**#151 086**	Fingertip control		
PRHC-14	**#195 511**	Hand control. 120 volts GFCI power		
Extension Cords	**#122 973** **#122 974** **#122 975**	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.9 m)		
Trailers and Hitches				
HWY-224 Trailer	**#043 805**			
Lunette Eye 2-1/2 in (64 mm)	**#043 824**	For use with 224 trailer		
Cable Tree	**#043 826**	For use with 224 trailer		

Date: **Total Quoted Price:**

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